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AUTHOR	Porter, Vicki M.
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ABSTRACT

This study explored the dichotomy between global errors, that is, those violating rules of overall sentence structure, and local errors, that is, those violating rules within a particular constituent of a sentence, and the relationship of these to communication breakdown. The focus was tense continuity across clauses (TC) and subject-verb agreement (SVA). The subjects (SS) (67 native speakers of English and 18 non-native speakers, all graduate students) were asked to read passages containing errors of either type. Communication breakdown was measured by scoring the Ss' ability to correct the errors on the assumption that if errors can be corrected and if the correction is in accordance with the writer's intent, then communication breakdown is absent. Ss also responded to a questionnaire that included their perceived difficulty of the passage and their estimate of the writer's academic achievement. Passages with SVA errors were easier to correct than passages with TC errors: TC errors are therefore considered a more serious hindrance to communication than SVA errors. Ss in this study had lenient standards for non-native speakers regarding the connection between grammatical item or passage and academic achievement. The implications for teaching ESL and for educational evaluation and research methodology are noted. (AMH)

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UCLA Graduate School of Education
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THE EFFECTS OF TENSE CONTINUITY AND SUBJECT-VERB AGREEMENT ERRORS ON COMMUNICATION[1]

Vicki M. Porton

In the past, teachers of foreign students in the United States have required grammatical accuracy in verbal and written performance of their students. However, it is seldom realized that grammatical accuracy is neither necessary nor sufficient for communication to take place. Some attention has been given recently to the investigation of the relationship between grammatical errors and communication breakdown. It is proposed that once the grammatical errors which are most detrimental to comprehensibility of foreign students by native English speakers are identified, then steps can be taken by teachers of foreign students--in particular, teachers of English as a Second Language (ESL)--to optimize the learning process and eliminate barriers to communication.

Statement of the Problem

Perhaps not all grammatical errors should be corrected to the same degree. Burt and Kiparsky (1975) argued that global mistakes (those violating rules of overall sentence structure) hamper communication more than local mistakes (those violating rules within a particular constituent of a sentence). Tomiyama (1977) tested this argument empirically. She reasoned that if native English speakers could correct errors imposed on a passage,

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[1]Paper presented at the Annual Conference of the California Educational Research Association, Los Angeles, November, 1977.

then no communication breakdown had been induced by the errors. She employed a 2x3x2 design in which there were (a) two kinds of grammatical items: articles, a local feature, and connectors, a global feature; (b) three types of errors: omission, insertion, and wrong choice; (c) two passages: one expository and one narrative. Subjects (N=120) were randomly assigned to one of twelve texts containing one type of grammatical item, error, and passage (e.g., wrong choice of connectors in the expository passage). Subjects corrected the errors and answered a questionnaire which elicited biographical data and information about their perceived difficulty of the passage, their frequency of sentence rereading, and their rating of the hypothetical writer's achievement. Tomiyama found that connectors were more crucial to communication than articles, i.e., correction scores for connectors were lower than those for articles. Insertion type errors were less crucial to communication than omission or wrong choice type errors. These findings could be generalized over different kinds of passages when a synonym scoring rule was used but not when a more stringent verbatim rule was used as a measure of correctability or comprehensibility. The verbatim score produced a passage effect. Judgment of likely academic achievement was also affected by grammatical item in that ratings were higher for the texts in which articles were modified than for those with modified connectors. Subjects' sex, reading speed, and knowledge of grammar moderately correlated with their correction scores. The question remained as to whether these results could be extended to other grammatical items.

In an extension of Tomiyama's work, the present study attempted to

explore further the global/local dichotomy by looking at tense continuity across clauses and subject-verb agreement and their relationship to communication breakdown. Error analyses of several different languages show that ESL students typically make grammatical errors with these items (Waymire, 1965; Robinson, 1970; Faustino, 1961; Florsheim, 1972; Mockridge, 1968). The incorrect replacement of the present tense for the past (and vice versa) and incorrect usage of verb forms in the third person, i.e., ARE/WERE used instead of IS/WAS and vice versa, are common ways in which ESL students make errors with these linguistic features.

Methods

Subjects

The subjects (Ss) were 95 graduate students from the UCLA Graduate School of Education. The sample consisted of 67 native speakers of English and 18 nonnative English speakers. Analyses were performed on the group as a whole as well as on the native English speakers alone.

Treatment

Two passages, a narrative and an expository essay, were mangled syntactically. Each was modified in one of two ways: namely, 1) wrong choice of tense across a clause, or 2) wrong choice of third person verb form. Examples of these modifications for each passage are given in Table 1. Subjects were randomly assigned to the four conditions. They were asked to read the passages and correct the grammatical errors.

Dependent Measures

As in Tomiyama's (1977) study, communication breakdown was measured by scoring the Ss' ability to correct the errors on the assumption that if grammatical errors can be corrected and that if that correction is semantically in accordance with the writer's intent, then communication breakdown is absent. In contrast, if the errors cannot be corrected or the correction distorts the writer's information, then communication breakdown exists to some degree. Because of the nature of the grammatical items in this study, only a verbatim scoring rule was used and wrong choice type errors were examined. Thus, each S was awarded a "correction score" equal to the number of corrections he or she made that were identical to the original passage.

Ss also responded to a questionnaire which included their perceived difficulty of the passage and their estimate of the writer's academic achievement (given whether the hypothetical writer is a native or nonnative English speaker). Background information and scores on the Wide Range Vocabulary Test were also obtained for each S.

Analyses

Several 2x2 analyses of variance were conducted to determine the effects of grammatical items and types of passages on communication breakdown (i.e., correction scores), perceived difficulty, and achievement judgments. Breakdown analyses were conducted to obtain descriptive statistics.

Discussion of Results

The means and standard deviations for correction scores of the 67 native English speakers are reported in Table 2, and the analysis of variance is

reported in Table 3. The ANOVA indicated a significant main effect for grammatical item with the score on modification of subject-verb agreement (SVA) being higher than the score on texts with modification of tense continuity (TC). Thus, passages containing SVA errors were easier to correct and, therefore, less disturbing to communication than passages containing TC errors. This replicates Tomiyama's (1977) findings and supports the global/local hypothesis. It also corroborates Burt and Kiparsky's (1975) classification of TC and SVA into global and local categories, respectively.

TABLE 1

Treatment

Type of Modification	Example
1. Wrong choice of third person verb form: narrative essay	- They <u>was</u> afraid that...
2. Wrong choice of tense across a clause: narrative essay	- When I <u>arrive</u> at his house, he greeted me warmly.
3. Wrong choice of third person verb form: expository essay	- Many of their tools and implements <u>was</u> carved from...
4. Wrong choice of tense across a clause: expository essay	- Their skill...fitted them well for the hunting and fishing culture they <u>develop</u>.

TABLE 2

Mean Correction Scores and Standard Deviations*

PASSAGE / ITEM	Narrative	Expository	
TC	8.278 (1.841)	8.350 (1.349)	8.316 (1.579)
SVA	8.714 (1.684)	9.500 (.800)	9.077 (1.383)
	8.469 (1.760)	8.781 (1.290)	8.625 (1.540)

*Standard deviations are given in parentheses. Scores range from 1 to 10.

TABLE 3

Analysis of Variance of Correction Scores

Source	MS	df	F	ω^2
Grammatical item	9.071	1	3.948*	.06
Passage	3.448	1	1.501	
Grammatical item X Passage	1.766	1	.769	
Error	2.298	57		
*Significant at .05				

No significant main effect for passage or two-way interaction between grammatical item and passage was obtained. This finding was similar to Tomiyama's (1977) results when the synonym scoring rule was used. The interaction between passage and grammatical item produced by her verbatim rule was not significant in this study suggesting that the effect occurs only with specific grammatical items.

When the Ss' judgment of difficulty in comprehending the text was used as a dependent variable, there was a significant main effect for passage ($N=67$, $p < .05$). The narrative was perceived to be easier than the expository essay (see Tables 4 and 5). Contrary to Tomiyama's (1977) findings, there was no main effect for grammatical item although the trend was in the appropriate direction with the mean difficulty judgment being slightly higher for SVA than for TC modification. This implies that SVA errors may be slightly easier to correct than TC errors. A possible explanation for the disagreement between studies is the smaller sample size in the present study. Significance may appear with a larger sample which would lend further support to the hypothesis that SVA is less crucial to communication than TC.

Tomiyama (1977) asked her Ss to judge academic achievement based on the texts. Her results indicated that only grammatical item had an effect on achievement judgment with article modification being more favorably rated than connector modification. She concluded that foreign students' compositions containing global errors could be judged more harshly than those containing local mistakes. In the present study, Ss were again asked to judge likely academic achievement, but they were given whether or not the writer of the text was a native speaker of English. When told that the writer was a native English

TABLE 4

Analysis of Variance of Difficulty

Source	MS	df	F	ω^2
Grammatical item	1.376	1	1.868	.07
Passage	3.591	1	4.877*	
Grammatical item X Passage	.154	1	.650	
Error	.736	57		
*p < .05				

TABLE 5

Mean Difficulty Scores and Standard Deviations*

PASSAGE / ITEM	Narrative	Expository	
TC	4.444 (.784)	3.850 (1.040)	4.132 (.963)
SVA	4.571 (.514)	4.250 (.866)	4.423 (.703)
	4.500 (.672)	4.000 (.984)	4.250 (.873)

*Standard deviations are given in parentheses. Scores range from 1 to 5 (very difficult to very easy).

speaker, grammatical item had a significant effect on achievement judgment at the .01 level with SVA modification getting higher ratings than TC modification (N=67; see Tables 6 and 7). Since TC errors are assumed to have a greater effect on communication breakdown, it seems reasonable that native speakers who use incorrect tenses across clauses get lower achievement judgments than those who misuse third person verb forms. Writers of expository essays also received higher ratings than writers of narratives ($p<.05$). Expository essays may be considered a more sophisticated type of writing than narratives. Graduate students, who are accustomed to doing lots of research papers, probably place more value on essays which require external sources of information than on anecdotal papers which rely solely on internal references and experiences. These factors may also help to explain why the expository passages were judged to be more difficult to understand than the narratives.

In the present study, when the Ss were told that the writer of the text was a nonnative speaker of English, there were no significant effects whatsoever of grammatical item or passage on judgment of academic achievement. Furthermore, the mean achievement judgment for nonnatives was significantly higher than that for natives over all groups. This implies that standards may be more lenient for nonnative English speakers, and that Tomiyama's (1977) conclusion that foreign students' compositions containing global errors are judged more negatively than those containing local errors may be unwarranted. Another interpretation is that expectations about the relation between grammatical proficiency and achievement may be different when judging native versus nonnative English speakers. In other words, native speakers (the Ss) may perceive that writing ability does not reflect intellectual ability to the same

TABLE 6

Analysis of Variance of Achievement Judgment of Native English Speakers

Source	MS	df	F	ω^2
Grammatical item	5.936	1	6.695**	.09
Passage	3.808	1	4.295*	.06
Grammatical item X Passage	.209	1	.236	
Error	.887	57		
**Significant at .01 *p < .05				

TABLE 7

Mean Achievement Judgments of Native English Speakers and Standard Deviations*

PASSAGE / ITEM	Narrative	Expository	
TC	2.180 (.809)	2.580 (.902)	2.390 (.871)
SVA	2.692 (.855)	3.333 (1.231)	3.000 (1.080)
	2.400 (.855)	2.871 (1.088)	2.639 (1.001)

*Standard deviations are in parentheses. Judgments range from 1 to 5 (very poor to excellent).

degree in nonnatives as in native English speakers. In any case, if essays are required for admission into college and are used as examinations in college, then foreign students may not be at a disadvantage as long as their nonnative status is known by the decision-maker.

An examination of the relationship between Ss' characteristics and correction score showed a moderate but significant correlation between their sex and judged knowledge of grammar to the correctability measure. Females scored higher than males (although the reverse was true in Tomiyama's [1977] study) and Ss who claimed to have a better knowledge of grammar corrected more errors. Scores on the Wide Range Vocabulary Test and correction scores were also positively correlated ($r=.31$, $p<.01$). Thus, vocabulary and grammar skills of the reader are related to their ability to correct grammatical errors. These abilities seem to be important qualifications for teachers who read students' written work and especially for teachers of foreign students.

An analysis of both native and nonnative English speakers (all 95 Ss) indicated no significant effects of grammatical item on correction score. An inspection of the data for nonnatives only revealed a trend towards higher scores for Ss in the TC group, although the effect was not significant possibly because of the very small cell sizes. One interpretation of this result is that ESL classes might place more emphasis on global errors. According to Burt and Kiparsky (1975), "it is easier to make a student appreciate and correct a global error" (p. 80) because of the gravity of global errors. These errors can distort the meaning of an entire thought, and they hardly ever occur in first language learning. When these errors are translated into the nonnative speaker's language, he becomes aware of how strange and glaring they sound. Further studies on nonnative English speakers are necessary before definitive conclusions can be drawn.

Conclusions and Implications

The results of this study have implications not only for teaching ESL but also for educational evaluation and research methodology. ESL teachers should concentrate more on correcting global errors such as tense continuity and connectors than on local errors if their primary goal is to promote communication skills in their students. The educational decision-making process can be made more effective if students are not penalized for all types of grammatical errors indiscriminately. For example, teachers should be wary of the specific grammatical errors made on blue book exams and term papers; administrators should attach differential weights to grammatical errors made in school or job application essays. Moreover, the validity of correction scores as a measure of comprehension and lack of communication breakdown needs further investigation. Correction scores should be compared with other measures of communication breakdown such as questions testing literal comprehension, reading speed, and paraphrasing. Finally, the findings of this study should have a bearing on all fields which are concerned with the consequences of violating rules of English language usage.

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